

What is claimed is:

- 1 1. A system for delivering dynamic content to a client coupled to a network,
2 wherein the client sends a request for the dynamic content to an origin site
3 coupled to the network, and wherein the origin site accesses a database, the
4 system comprising:
5 a plurality of caches coupled to the network, each including:
6 data replicated from the database, and
7 application logic to generate the dynamic content using said data; and
8 a router to route the request from the origin site to a cache selected from said
9 plurality of caches.
- 1 2. The system of claim 1, wherein the origin site includes an application server to
2 deliver said application logic to said plurality of caches via the network.
- 1 3. The system of claim 2, wherein said application logic comprises a servlet
2 program and the application server interacts with said servlet program according
3 to a Remote Method Invocation (RMI) protocol.
- 1 4. The system of claim 2, wherein communications between said plurality of
2 caches, the database, and the application server are directed through said router,
3 and said router is configured to perform protocol translations.
- 1 5. The system of claim 4, wherein said router is further configured to provide
2 security for said communications.
- 1 6. The system of claim 4, wherein said router is further configured to provide
2 compression for said communications.
- 1 7. The system of claim 4, wherein said router is further configured to provide delta
2 encoding for updating said application logic.
- 1 8. The system of claim 1, wherein said application logic generates the dynamic
2 content based at least in part on information provided by the client.
- 1 9. The system of claim 1, wherein the client comprises an individual end user.

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- 1 10. The system of claim 1, wherein the client comprises an automated computer
2 program.
- 1 11. The system of claim 1, wherein said plurality of caches are each configured to
2 operate in a plurality of execution environments.
- 1 12. The system of claim 1, wherein said plurality of caches each include a main
2 memory database (MMDB) to store said data.
- 1 13. The system of claim 12, wherein said plurality of caches each further includes a
2 secondary cache.
- 1 14. The system of claim 1, wherein said data is transferred from the database to said
2 plurality of caches via a satellite communications network.
- 1 15. The system of claim 1, wherein the database comprises a database management
2 system (DBMS) and one or more database servers.
- 1 16. The system of claim 1, wherein said router comprises a Global Server Load
2 Balancing (GSLB) router.
- 1 17. The system of claim 1, wherein said application logic of said selected cache
2 generates the dynamic content in response to the request.
- 1 18. The system of claim 1, wherein said selected cache is configured to determine
2 whether the request is transactional or informational, and if transactional, to
3 proxy the request to the origin site, and if informational, to process the request
4 using said application logic.
- 1 19. The system of claim 1, wherein said application logic issues a database request
2 when processing the request, and wherein said selected edge cache is configured
3 to determine whether said database request is transactional or informational, and
4 if transactional, to proxy said database request to the origin site, and if
5 informational, to process said database request using said application logic.

1 20. An edge cache for delivering dynamic content to a client coupled to a network,
2 wherein the client sends a request for the dynamic content to an origin site
3 coupled to the network, and wherein the origin site includes a database and an
4 application server, said edge cache comprising:

5 a data cache to store data, wherein said data is replicated from the
6 database; and

7 a logic cache to store application logic received from the application
8 server, wherein said application logic generates the dynamic content in response
9 to receiving the request.

1 21. A method for delivering dynamic content to a client coupled to a network,
2 wherein the client sends a request for the dynamic content to an origin site
3 coupled to the network, and wherein the origin site accesses a database, said
4 method comprising:

5 selecting a cache from a plurality of caches coupled to the network;

6 routing the request to said cache;

7 executing application logic at said cache to generate the dynamic content,
8 wherein said application logic accesses data stored in said cache, and wherein said data
9 is replicated from the database; and

10 sending the dynamic content to the client in response to the request.

1 22. The method of claim 21, wherein the origin site includes an application server,
2 and wherein said method further comprises distributing said application logic
3 from the application server to said cache.

1 23. The method of claim 21, wherein said executing comprises determining whether
2 the request is transactional or informational, and if transactional, forwarding the
3 request to the origin site, and if informational, processing the request at said
4 cache.

1 24. The method of claim 21, wherein said executing comprises:
2 issuing a database request; and

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3 determining whether said database request is transactional or informational, and
4 if transactional, forwarding said database request to the origin site, and if informational,
5 processing said database request at said cache.

1 25. The method of claim 21, wherein said executing comprises:
2 issuing a database request; and
3 determining whether said database request is transactional or informational, and
4 if informational, processing said database request at said cache, and if transactional:
5 forwarding said database request to the origin site, and
6 suspending operation until said data has been updated to reflect said
7 database request.

1 26. The method of claim 21, wherein said executing comprises:
2 issuing a database request; and
3 determining whether said database request is transactional or informational, and
4 if informational, processing said database request at said cache, and if transactional:
5 forwarding said database request to the origin site, and
6 forwarding subsequent database requests to the origin site until said data
7 has been updated to reflect said database request.